

#### · US005247356A

## United States Patent [19]

## Ciampa

[11] Patent Number:

4,688,092 8/1987 Kamel 4,707,698 11/1987

4,814,711 3/1989 Olsen . 4,814.896 3/1989 Heitzman . 5,247,356

Date of Patent: [45]

Sep. 21, 1993

[54]	METHOD AND APPARATUS FOR MAPPARAND MEASURING LAND	
[76]	Inventor:	John A. Ciampa, 1894 Strong Rd., Victor, N.Y. 14564
[21]	Appl. No.:	836,880
[22]	Filed:	Feb. 14, 1992

# 5,034,812 7/1991 Rawlings. Primary Examiner—Tommy P. Chin Assistant Examiner—Richard Lee

Attorney, Agent, or Firm-Nixon, Hargrave, Devans & Doyle

Constant .

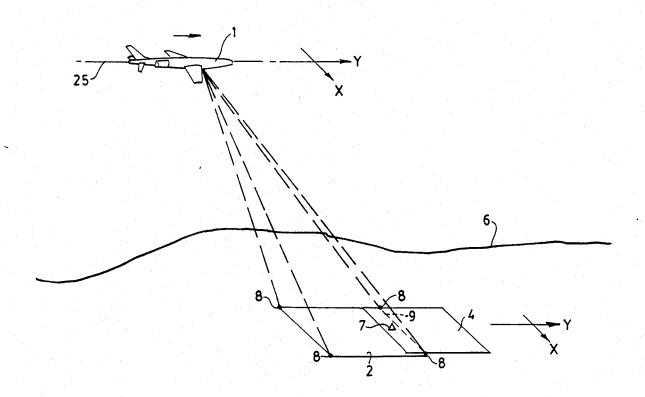
#### [57] **ABSTRACT**

A method and apparatus for mapping land can create overlapping images of portions of a strip of land, assign to those images geographic coordinates calculated in real time from initially stored coordinates of a first predetermined templated image, such that a series of images can be accessed from a storage medium to be displayed as a video map of the strip of land without manually assigning geographic coordinates to it. The method and apparatus can also be used to electronically measure the portions of the strip of land, and determine the geographic elevation of points on the strip of land.

### 16 Claims, 7 Drawing Sheets

## [56] References Cited U.S. PATENT DOCUMENTS

3,594,556	7/1971	Edwards .
3,725,563	4/1973	Woycechowsky .
3,864,513	2/1975	Halajian
4,015,080	3/1977	Moore-Searson .
4,240,108	12/1980	Levy .
4,360,876	11/1982	Girault .
4,463,380	7/1984	Hooks, Jr.
4,543,603	9/1985	Laures 358/109
4,635,136	1/1987	Ciampa .
4.686,474	8/1987	Olsen



33/1 A